

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method comprising:

utilizing first and second virtual machine queues associated with respective first and second virtual machines to communicate between the virtual machines using data stored in a page in response to an instruction; and

wherein utilizing comprises:

communicating the data stored in the page from the first virtual machine to the second virtual machine by updating a page table by a processor by remapping the page from being associated with the first virtual machine to being associated with the second virtual machine; and

wherein said updating comprises:

determining whether the instruction requires an immediate VM exit from the first virtual machine; and

exiting the first virtual machine based on said determining.

2. (Canceled)

3. (Currently amended) The method according to claim 1, wherein updating further includes comprises:

placing at least one of data and or an address associated with the page into a first virtual machine control structure associated with the first virtual machine;

exiting the first virtual machine;

placing the at least one of data and or address into the second virtual machine queue; and dequeuing the second virtual machine queue.

4. (Currently amended) The method according to claim 3, wherein dequeuing includes:

reading the at least one of data and or address into a second virtual machine control structure associated with the second virtual machine; and

storing the at least one of data ~~and~~or address into the address space associated with the second virtual machine.

5. (Original) The method according to claim 3, wherein the page contains a message and the method further comprises:

processing the message within the second virtual machine.

6. (Currently amended) The method according to claim 3~~1~~, wherein exiting occurs immediately after placing the at least one of data ~~and~~or an address associated with the page into the first virtual machine control structure.

7. (Original) The method according to claim 1, further comprising:
conveying identification information associated with the first and second virtual machines between the first and second virtual machines via the first and second virtual machine queues.

8. (Currently amended) A computer system comprising:
at least one hardware processor; and
a computer readable memory comprising program instructions, executable by the at least one processor, for:

first and second virtual machines;
a first virtual machine control structure associated with the first virtual machine, the first virtual machine control structure having a first virtual machine queue adapted to enqueue and dequeue a message;

a second virtual machine control structure associated with the second virtual machine, the second virtual machine control structure having a second virtual machine queue adapted to enqueue and dequeue a message; and

a virtual machine monitor coupled to the first and second virtual machines and to the first and second virtual machine control structures, the virtual machine monitor adapted to supervise

communication between the first and second virtual machines and, in response to an instruction, communicate a message stored in a page from the first virtual machine to the second virtual machine by updati~~ng~~g of a page table by a processor by remapping re~~map~~ of a page from being associated with the first virtual machine to being associated with the second virtual machine, the update comprising:

exit from the first virtual machine based on a determination whether the instruction requires an immediate VM exit from the first virtual machine.

9. (Canceled)

10. (Currently amended) The computer system according to claim 8, wherein the virtual machine monitor is further adapted to place at least one of data and or an address associated with the page into the first virtual machine control structure.

11. Canceled

12. (Currently amended) The computer system according to claim 11, wherein the virtual machine monitor is further adapted to place at least one of data and or an address into the second virtual machine queue.

13. (Original) The computer system according to claim 12, wherein the second virtual machine is adapted to process the page.

14. (Original) The computer system according to claim 8, wherein the virtual machine monitor is further adapted to convey identification information associated with the first and second virtual machines between the first and second virtual machines via the first and second virtual machine queues.

15. (Currently amended) A computer readable memory containing program instructions that, when executed by a processor, cause the processor to:

utilize first and second virtual machine queues associated with respective first and second virtual machines to communicate between the virtual machines using data stored in a page in response to an instruction; and

wherein utilize comprises communicate the data stored in the page from the first virtual machine to the second virtual machine by updating update of a page table by a processor by remapping remap of the page from being associated with the first virtual machine to being associated with the second virtual machine; and

wherein the update comprises:

exit from the first virtual machine based on a determination whether the instruction requires an immediate VM exit from the first virtual machine.

16. (Canceled)

17. (Currently amended) The computer readable memory according to claim 15, containing further program instructions that, when executed by a processor, cause the processor to:

place at least one of data and or an address associated with the page into a first virtual machine control structure associated with the first virtual machine;

exit the first virtual machine;

place the at least one of data and or address into the second virtual machine queue; and dequeue the second virtual machine queue.

18. (Currently amended) The computer readable memory according to claim 15, containing further program instructions that, when executed by a processor, cause the processor to:

read the at least one of data and or address into a second virtual machine control structure associated with the second virtual machine; and

store the at least one of data and or address into the address space associated with the second virtual machine.

19. (Original) The computer readable memory according to claim 17, wherein the page contains a message, and wherein the computer readable memory contains further program instructions that, when executed by a processor, cause the processor to:

process the message within the second virtual machine.

20. (Original) The computer readable memory according to claim 15, containing further program instructions that, when executed by a processor, cause the processor to:

convey identification information associated with the first and second virtual machines between the first and second virtual machines via the first and second virtual machine queues.

21. (New) A method comprising:

utilizing first and second virtual machine queues associated with respective first and second virtual machines to communicate between the virtual machines using data stored in a page;

wherein utilizing comprises:

communicating the data stored in the page from the first virtual machine to the second virtual machine by updating a page table by a processor by remapping the page from being associated with the first virtual machine to being associated with the second virtual machine; and

wherein the updating comprises:

at least one of:

placing at least one of data or an address associated with the page into the first virtual machine control structure and exiting the first virtual machine; or

exiting the first virtual machine immediately without placing the at least one of data or the address associated with the page into the first virtual machine control structure;

placing the at least one of data or the address associated with the page into the second virtual machine queue; and

dequeueing the second virtual machine queue, wherein dequeuing comprises:

reading the at least one of data or address into a second virtual machine control structure associated with the second virtual machine; and

storing the at least one of data or address into the address space associated with the second virtual machine; and

processing within the second virtual machine, a message within the page.

22. (New) The method according to claim 21, further comprising:

conveying identification information associated with the first and second virtual machines between the first and second virtual machines via the first and second virtual machine queues.